

Sustainable Environment in Puerto Rico

Good evening and thank you for that introduction. I am very pleased to be here today to talk about sustainable development – and I know I am among the converts.

Much of society's growth and development has come from people with your skill sets. This week in history, in fact, calls to mind many advances and important events.

On March 12, 1933, President Franklin Roosevelt broke new ground by conducting his first Fireside Chat, broadcasting his thoughts to the entire nation over the radio. With that, he set a new standard of communications for the Chief Executives that followed him to the White House.

About 50 years earlier on March 13, World Standard Time was established. That event – established at a conference of world leaders in Washington, D.C. – synchronized all the world's clocks and watches to Greenwich Mean Time and signaled another level of cooperation between all countries on the globe.

In the annals of time, March 14th merits a special rank. On that day in 1879, Albert Einstein was born and, as we all know, his contributions to society are legend. The theory of relativity revolutionized the study of

physics and it was he who persuaded the same President Roosevelt to begin research on atomic energy.

About 85 years earlier, Eli Whitney patented the cotton gin – a machine that changed the course of history by greatly reducing the labor requirement in the production of cotton. More importantly, he discovered a way to mass produce his machine with interchangeable parts.

And, finally, on March 16th of 1926, Robert Goddard demonstrated the first flight of a liquid fueled rocket,

All of these events were steeped in science and engineering advances. Fireside chats, synchronized time, atomic energy, mass production and rocket flight – I think it's safe to say that these were all earth shattering, life changing experiences.

Today, we are suggesting nothing less when we talk about creating a sustainable environment. The environment we're interested in is a work in progress. We're talking about clean air, water and land. We're talking about a paradigm shift, a major shift in the way we work and live and play. And, while we all have a role to play in this drama, people with specialties and skills like yourselves will help lead the way.

Sustainability isn't a new concept. The Indian Nations take an inter-generational approach to the environment. For them, the environment is a

living, breathing thing – something that needs to be cherished and protected because, in turn, it is to be gifted to future generations. They are one with the environment – if they harm things of nature, they harm themselves. Now that’s a vision of sustainability.

The world has changed dramatically in the past millennia, in many ways – population, industrialization, scientific and medical knowledge, energy use, information distribution. Yet the link between then and now, between our ancestors and our children, is the overriding belief that we are all connected – at least in spirit, if not genetically. That’s how the tribal nations see it and that’s how we have to see it if we endorse sustainability.

The term “sustainability,” in relation to the environment, was first defined by a United Nations sponsored commission in 1987. According to the Brundtland Report sustainable development “meets the needs of the present without compromising the ability of future generations to meet their own needs.”

Survey after survey tells us that Americans are waking up to environmental responsibilities. People are growing more concerned. Newspapers and on-line news resources are reporting on alternate fuels and related innovative technologies. Politicians are running on “green platforms.” Corporations are stepping up their plans to develop new green

technologies. Companies are realizing the connection between the environment and their bottom line and they are developing and employing more environmentally friendly programs.

Successful companies have begun to realize that they compete not only on price and quality, but also on environmental performance and the promise of sustainability. They have an obligation to their employees, shareholders and customers to be good corporate citizens – to limit their impact on the environment.

To help encourage this behavior, EPA has a number of voluntary programs that offer strong, tangible environmental benefits, and many of the companies you represent are participants. If not, you can do well to encourage them to join.

EPA programs like Performance Track, which has 16 member companies in the Commonwealth, including Pfizer, Baxter, Schering-Plough, Hewlett Packard and Lifescan, are making a real difference.

This six-year-old national program invites and encourages members to conduct their business in an environmentally friendly fashion. Facilities must incorporate an environmental management system – a set of processes and practices that enable an organization to reduce its environmental footprint while increasing operating efficiency. Furthermore, they must

commit to greater improvements in their environmental performance and they must provide related information to their local community.

Another voluntary program, the National Partnership for Environmental Priorities, established two short years ago, has attracted companies that have a strong interest in waste minimization and the reduction of priority chemicals. Four Puerto Rico facilities – Smart Modular Technologies of Aguada, Caribe General Electric in Patillas, Solectron in Aguadilla and Puerto Rico Sun Microsystems in Ponce have all joined and pledged to remove tons of harmful chemicals from the waste stream.

Other firms are part of the joint EPA-U.S. Department of Energy program, Best Workplaces for Commuters. This voluntary program encourages employers to offer their workers incentives – like telecommuting, compressed workdays, vanpools and public transit reimbursements – to arrive at work and depart in an environmentally sound fashion. With gasoline prices going through the roof, more and more companies are realizing that there are layered benefits to programs like this – workers are saving on gas, less fuel is being acquired and burned, less greenhouse gases released, and the company reaps the good will benefit by helping employees, the community and the environment.

Much of what we do targets sustainability. The hypothesis is simple - if we can change behavior today, we can reap the environmental benefit tomorrow and beyond. If we can convince people and organizations that there is a direct link between how they treat the environment today and quality of life in the future, then good environmental behavior will become part of the public consciousness – a classic “no brainer” if you will.

When President Bush chose Steve Johnson as the first career scientist to head EPA, he mandated that the agency accelerate the pace of environmental progress without compromising our economic competitiveness. That message, and that mandate, resonates with our push for a sustainable environment.

Now, how do we get there from here? How do we keep the sustainability ball rolling? Well, we have to get everyone on board – we have to continue to get people involved in and aware of environmental impacts. We have to make lifestyle changes which, in turn, impact local actions. Along the way, we also have to take care of environmental transgressions.

While some other areas of the region – notably areas surrounding Manhattan and sections of New Jersey – are not in attainment of the

agency's health based standards for fine particulate matter – the air above us is fairly clean. Yet, if you drive the road ways in or around San Juan, you can't help but drive through the thick exhaust of a diesel engine. Dangers from the exhaust of diesel powered trucks and buses, and even non-mobile sources, can't be overlooked - particulate matter from diesel exhaust aggravates asthma and other respiratory conditions, and can contribute to cardiovascular disease and premature death.

We're doing something about that right now. EPA's Clean Air and Diesel Rules went into effect several months ago, requiring cleaner fuels – low sulfur fuel – and cleaner engines. The island and its residents will be healthier for it. And, in a few years, healthier still.

Another air pollution reduction initiative results from the consent decree between EPA and PREPA, which requires the utility to burn lower sulfur fuel at its Costa Sur and Aquirre plants, and at its Palo Seco and Puerto Nuevo facilities, or install air pollution control equipment to reduce emissions in an equivalent percentage.

EPA has also worked together with EQB to bring the (“GWA-YA-KNEE-JA – PAIN-WELL-US”) Guayanilla-Penuelas and the Catano air basins into compliance with National Ambient Air Quality Standards.

Air pollution – whether outside or inside your house – can have a dramatic effect on human health. Last year I visited the island and announced \$123,000 in grants for asthma related research for two of its academic institutions – the University of Puerto Rico and the University of Turabo.

Asthma is a severe problem in Puerto Rico. Studies have shown that the Commonwealth has the highest asthma mortality rate in the United States – other studies suggest that nearly 20% of the population is asthmatic. And a significant portion of those afflicted are children.

By taking pollutants out of the air – pollutants like sulfur and diesel exhaust – we can begin to make life easier for those afflicted and, of course cleanse the air. Besides the health and social benefit, there is an economic benefit as well – less doctor visits and hospital visits translate to less out of pocket and insurance costs – and a healthier workforce.

Some of the most pressing environmental and health matters in Puerto Rico have to do with water – wastewater, wetlands, and the availability of clean drinking water.

One of the initiatives we announced recently is the mega-consent decree with PRASA that will have a far-reaching impact on the island's wastewater treatment program. Over the past 36 years of the agency's

legacy, EPA has invested more than \$1.2 billion for wastewater infrastructure on the island.

Our intent is to establish a sustainable preventive maintenance program for all wastewater facilities, sanitary system evaluations and repairs.

We are working with and supporting EQB in developing Total Maximum Daily Loads, budgets for the discharges allowed to go into the island's waterways. About 80% of the population gets its drinking water from surface waters, which makes water quality especially critical in Puerto Rico. We have also signed a Watershed Stewardship Agreement with the Department of Health, EQB and PRASA to channel penalties imposed on PRASA for TMDL work. Related studies are underway in the Rio Grande de Loiza and Rio La Plata watersheds, from which 40% of the population gets its drinking water.

Last year we announced that the Puerto Rico Administration of Corrections has agreed to resolve violations of the federal Clean Water Act by paying a penalty, and by building a drinking water system – at a projected cost of \$1 million – to provide safe drinking water to the community of La Sapia in Orocovis.

EPA's goal, articulated by Administrator Steve Johnson, is to make significant progress in protecting human health and improving water quality over the next few years. Today, compliance with drinking water standards across the nation is about 93% - we want to get that to 95% by the year 2008.

While a two-percent up-tick may not seem significant, it is - in the grand scheme of things. Unfortunately some of us still tend to take clean water for granted. After all, for many of us, it's just an arms length away. We drink it, cook with it, bathe in it, and even wash our cars in it. Yet 40% of the world's population – 2.6 billion people around the globe – lack basic sanitation facilities and over one billion still use unsafe drinking water sources.

Here only 26 percent of the population receives drinking water that consistently meets federal health-based standards. Working with the Commonwealth, our goal is to significantly improve that percentage over the next decade. There are also about 200 non-PRASA water systems on the island, serving about 120,000 residents. None of them are fully compliant with the Safe Drinking Water Act. We have to continue to change this dynamic – these residents deserve better.

Another group that is trying to make a difference locally is the Partnership for Pure Water. Combining the efforts of private and public interests for more than a dozen years, the Partnership has worked toward upgrading the quality of drinking water in the commonwealth.

One thing we learned long ago was that the federal government is not as successful in making environmental improvements by itself. We need private sector and state-level partners, and we need citizen participation to affect change. With organizations like the Partnership for Pure Water on our side, we can make progress.

Puerto Rico wetlands and sensitive ecosystems are of great concern to all of us. There have been several EPA actions that have cracked down on illegal development of wetlands, specifically in San Isidro and Mayaguez. We also signed a consent decree with PREPA that will cause a \$3.4 million acquisition of wetlands at the Cucharillas marsh in Catano to protect it for eternity.

Wetlands are too valuable to compromise. They naturally filter chemicals and other contaminants from our inland and coastal waterways and help control erosion, especially during storms. They also nurture and sustain a variety of wildlife. Damaging or eliminating wetlands has a

serious impact up and down the food chain – again, imposing not only environmental, but also economic hardships on the community.

The San Juan Bay Estuary initiative is another great example of federal and local cooperation, restoring the estuary to its former beauty and vitality.

On another water note, Puerto Rico is again the recipient of an EPA Beaches and Environmental Assessment and Coastal Health Act grant to develop and implement beach water quality monitoring and notification programs at coastal beaches. With more than 300 miles of ocean coastline, Puerto Rico's monitoring of its beaches and water quality is a critical element in its environmental and economic health.

Perhaps the most pressing environmental issue on the island is solid waste management. There is no getting around the fact that Puerto Rico is an island, with limited boundaries and limited space – compounding the sustainability factor.

Many of the island's landfills lack liners and leachate controls. Some are located in environmentally sensitive karst areas, posing direct threats to ground water. Some are located close to drinking wells or vulnerable ecosystems, or are impacting wetlands. These conditions make the

management of the island's solid waste even more challenging than on the mainland.

EPA will continue to work with the commonwealth to improve the island's solid waste situation. Our ultimate goal is a comprehensive solid waste management program that recognizes the need for properly located and managed landfills, and a serious approach to source reduction, recycling and waste-to-energy alternatives.

Recycling itself will require a fresh look now that we have moved rapidly into the electronic world. If you're a member of my generation, you can recall the days of black and white television, rotary telephones, 45 rpm records and the manual typewriter. Today you can't go very far without running into someone with an iPod, a digital camera and a cell phone – sometimes all in the same apparatus.

On the subject of cell phones alone, I was amazed to learn that over 100 million cell phones are retired each year throughout the world and that another 500 million are stored in drawers and closets with no clear plan for collecting or recycling.

E-cycling, as the recycling of electronics equipment is called, is no longer a luxury – it's a necessity. Many communities are responding with special electronics equipment pickups and manufacturers are being charged

waste related fees. Here, in Puerto Rico, where the recycling rate is only in the range of 10-15% of all recyclable goods, we have a problem – and electronic waste is only going to complicate that problem further. We have to come to terms with that.

Frankly, I think there is more than just an environmental opportunity here. I think there is also an economic opportunity. On the mainland, the recycling industry is rivaling some more traditional industries for revenue growth. In the commonwealth we need a greater recognition of the economic benefit of recycling – recycling and reuse means lessened expense – recycling and reuse needs industrial support – recycling and reuse means potential employment opportunities.

As I said earlier, we're all in this together, and sometimes the smallest initiatives can have the greatest impact. Take, for instance a grant provided by EPA to the Puerto Rico Department of Housing, to design and develop affordable housing that also conserves energy. The prototype is underway in Juncos and it will demonstrate a 30 percent reduction in average energy use. Today, that's just one house, but tomorrow it's a community.

Consumers on the island are buying Energy Star appliances and products – such as energy saving light bulbs – which will have a huge impact on the environment in the future. Residents of Puerto Rico who have

taken the Energy Star pledge and purchased these bulbs have already eliminated more than 246,000 pounds of greenhouse gas emissions.

That's the point of sustainability. All of us – at work, at play, in our homes – have the ability and the responsibility to build toward a sustainable environment. It begins with changing a light bulb and recycling a plastic bottle - and it never really ends.

Thank you again for inviting me to join you and, I would be more than happy to answer any questions you might have.